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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,789	02/21/2002	Bevan Staple	019930-006100US	9867
20350	7590	01/15/2004		EXAMINER
		TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834		HE, AMY
			ART UNIT	PAPER NUMBER
				2858

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/080,789	STAPLE ET AL.
	Examiner Amy He	Art Unit 2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is FINAL.      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-4, 6-15, 17-22 and 24-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) 1-4, 6-15, 17-22 and 24-27 is/are allowed.
- 6)  Claim(s) 28-36 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 21 February 2002 is/are: a)  accepted or b)  objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a)  All    b)  Some \* c)  None of:  
 1.  Certified copies of the priority documents have been received.  
 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 13)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a)  The translation of the foreign language provisional application has been received.
- 14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 28-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama et al. (U. S. Patent No. 6, 133, 807), in view of Feierabend et al. (US Pub. No. 2002/0094152).

Referring to claims 31-36, Akiyama discloses a MEMS device (in Figure 1) comprising:

a substrate (11);

a structural linkage (18) connected with the substrate;

a movable element(18 ) formed over the substrate (11) and configured to move to a position defining a select state of the MEMS device upon activation of an electrode(13), the electrode provide an electrostatic force on the moveable element;

a sensing configuration having first and second fixed sensing electrodes/waveguide ports (13 and 12) formed over the substrate (11), wherein the first and second fixed sensing elements are electrically coupled when the movable element (18) is in the position and electrically uncoupled when the moveable element is not in the position.

Akiyama does not specifically disclose a detector configured to indicate when the first and second fixed sensing elements are electrically coupled. Feierabend discloses a detector (page 6, [0076]; Fig. 3B) for indicating the switched position of the MEMS device. A person of ordinary skill in the art would find it obvious at the time of the invention to modify Akiyama to use a detector, as taught by Feierabend, to indicate when the first and second fixed sensing elements are electrically coupled, in order to inspect the switched states of the MEMS device.

Referring to claim 28-30, Akiyama discloses the method steps of changing a voltage of a first region of a first fixed sensing element (13) formed over the substrate (by supplying an actuation voltage, column 12, claim 1), wherein the first and second fixed sensing elements (13 and 12 in Figure 1) are electrically coupled when the movable element (18) is in the select state and electrically uncoupled when the moveable element is not in the select state.

Akiyama does not disclose the method step of measuring a second fixed sensing element formed over the substrate. Feierabend discloses measuring an impedance, to detect the switched states of the MEMS device. A person of ordinary skill in the art would find it obvious at the time of the invention to modify Akiyama to use a detector to measure the impedance changes, as taught by Feierabend, in order to inspect whether or not the MEMS device is in a switched state.

***Allowable Subject Matter***

2. Claims 1-4, 6-15, 17-22 and 24-27 are allowed.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-4, 6-15, 17-22 and 24-27 are persuasive, claims 1-4, 6-15, 17-22 and 24-27 have been allowed. Applicant's arguments with respect to claims 28-36 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (703) 305-3360 (before January 27, 2004) and (571) 272-2230 (after January 27, 2004). The examiner can normally be reached on 9:30am-6pm.

Art Unit: 2858

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

AH *in*  
January 11, 2004

  
N. Le  
Supervisory Patent Examiner  
Technology Center 2800